



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,829	11/03/2003	Kenneth E. Feuerman	07844-612001	6257
21876	7590	12/05/2007		
FISH & RICHARDSON P.C. P.O. Box 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER TRAN, QUOC A	
			ART UNIT 2176	PAPER NUMBER
			MAIL DATE 12/05/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/700,829

Applicant(s)

FEUERMAN, KENNETH E.

Examiner

Tran A. Quoc

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,11-22,24,34-45 and 47-52 is/are pending in the application.
- 4a) Of the above claim(s) 13-21 and 36-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,11,12,22,24,34,45 and 47-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This is a Final Office Action on the merits. This action is responsive to Amendments/Remarks, which was filed on 09/21/2007.

Claims 1, 11-22, 24, 34-35, 45 and 47-52 are pending. Claims 2-10, 23, 25-33, and 46 are previously cancelled. Claims 13-21, and 36-44 are withdrawn from consideration (Non-elected claims). Claims 11, 34, and 47-52 are previously amended, with claims 1, 12, 22, 24, 35, and 45 being the independent claims. Applicant has amended independent claims 1, 12, 22, 24, 35, and 45.

Effective filing date is 11/03/2003, (Assignee: Adobe).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

**Claims 1, 11, 12, 22, 24, 34-35, 45, and 47-52** are rejected under 35 U.S.C. 103(a) as being unpatentable **Coifman et al.** US 20040254791A1, Provisional No. 60/451,024 filed 03/01/2003 (hereinafter Coifman), in view of **Reintjes et al.** US 20020067854A1 filed 12/01/2000 (hereinafter Reintjes).

*Regarding independent claim 1*, Coifman teaches: (as amended)

**A computer-implemented method for generating an audio-based represented electronically as a digital audio file, the audio-based form including one or more data fields,**

(See Coifman at Fig. 2-3 and Para 29-30, and Para 39, discloses a speech recognition system, includes audio-based form including one or more data fields and form database.

**defining structural information including a name for each of the one or more data fields and a description of a type of user data expected to be provided for each of the one or more data fields;**

(See Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form. As illustrated in Fig. 3, the context specific sub-databases 381 (pertaining to the medical findings field) and 382 (pertaining to the medical interpretations field) may include contextually intertwined text strings that the speech recognition system of the present invention must identify and properly select so as to achieve the efficiencies of the present invention. This allows user to include a name and a description of a type of user data expected for each of the data fields.)

**where the audio-based form comprises audio signals recording a voice speaking a name of a data field followed by a pause during**

**which a user can speak the user data expected to be provided for the data filed.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patient's age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

**the audio-based form, and encoding the zoning and structural information in one or more audio signals; and incorporating the one or more audio signals including the encoded zoning and structural information into the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patient's age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

To support the above interpretation, the Examiner reads the claimed consistence with Applicant's Specifications, which states, "*zoning and structural information corresponding to the form shown in FIG. 1. The form's author defined a name, location and data type for each field. For example, the Employee Name field,*" at Page 8 Lines 13-15.

In addition Coifman does not expressly teach, but Reintjes teaches:

**the method comprising: defining zoning information  
identifying a temporal location and temporal dimensions of the one  
or more data fields.**

(See Reintjes at Para 34-42, discloses the zoning defining by temporal rule selection.

Also see Reintjes at Para 32-34, discloses fill out forms from top to bottom and from page 1 to page N in order. For example, address and name fields contain collections of short strokes with certain characteristics (printed letters) and numeric fields (SS#, zip codes etc.) that can be identified as such in many cases. In this case, the content of the data, as well as its location, can be used to make decisions regarding the form. If there are check boxes or circled entries (e.g. Sex M/F), they can be used as reliable indicators of which page is being used as well as the forms paper alignment on the clipboard. For the purposes of this discussion, data that can be identified based on the foregoing characteristics will be referred to as "content identifiable data." To support the above interpretation, the Examiner reads the claimed consistence with Applicant's Specifications, which states, "*zoning and structural information corresponding to the form shown in FIG. 1. The form's author defined a name, location and data type for each field. For example, the Employee Name field,*" at Page 8 Lines 13-15. )

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Mukherjee's zoning information identifying a temporal location and temporal dimensions of the one or more data fields, to include a means of utilizing a speech recognition system, includes audio-based form including one or more data fields and form database of Coifman. One of the ordinary skills in the art would have been motivated to

modify this combination, because both Coifman and Reintjes teach method of electronic form filling, it would have been obvious to one skilled in the art to substitute one method for another (i.e. pen based input for audio input) to achieve the predictable result of accurately transcribe the speech into to text (see Coifman at Para 20). Also, It would be desirable to have an electronic form is being filled out by an individual, that is automatically identifying the form and individual pages so that data input by an individual could be automatically associated with the correct page of the correct form (see Reintjes at Para 6).

**Claim 11**, Coifman teaches:

**wherein data entered on the form by a user can be extracted from the audio-based form based on the encoded zoning and structural information without access to a source of zoning or** (See (Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form.)



*Regarding independent claim 12, (as amended)*

the rejection of claim 1, which cites above is fully incorporated and is similarly rejected along the same rationale.

In addition, Coifman teaches:

**generating a form definition defining the audio-based form, wherein audio data entered into the audio-based form by a user can be extracted from the audio-based form based on the encoded zoning and structural information without access to a source of zoning or structural information external to the audio-based form.**

(See Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patient's age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

Regarding ***independent claim 22***, (as amended)

the rejection of claim 12, which cites above, and is fully incorporated and is similarly rejected along the same rationale.

Regarding ***independent claim 24***, (as amended)

is directed toward a computer program product performing the method of claim 12, which cites above and is similarly rejected under the same rationale.

***Claim 34***, Coifman teaches:

**wherein data entered on the audio-based form by a user can be extracted from the audio-based form based on the encoded zoning and structural information without access to a source of zoning or structural information external to the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form

field 318, the patient's phone number, shown in computerized form field 320, and the patients age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

Regarding *independent claims 35 and 45*, (as amended)

are directed toward a computer program product performing the method of claim 12, which cites above and is similarly rejected under the same rationale.

**Claim 47**, Coifman teaches:

**encoding instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and incorporating the one or more audio signals including the encoded instructions into the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fog. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patients age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

**Claim 48**, Coifman teaches:

**encoding instructions indicating where and how to transmit  
user data extracted from the audio-based form into one or more  
audio signals; and incorporating the one or more audio signals  
including the encoded instructions into the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fog. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in

computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patient's age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

**Claim 49**, Coifman teaches:

**encoding instructions indicating where and how to transmit  
user data extracted from the audio-based form into one or more  
audio signals; and incorporating the one or more audio signals  
including the encoded instructions into the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320,

and the patients age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

**Claim 50**, Coifman teaches:

**encoding instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and incorporating the one or more audio signals including the encoded instructions into the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patients age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field

sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

**Claim 51**, Coifman teaches:

**encoding instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and incorporating the one or more audio signals including the encoded instructions into the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patient's age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-

pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.

**Claim 52**, Coifman teaches:

**encoding instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and incorporating the one or more audio signals including the encoded instructions into the audio-based form.**

(See Coifman at Para, discloses input speech is provided to the speech recognition system via a voice collection device;

Also see Coifman at Fig. 3 and Para 41, discloses a speech recognition system, includes audio-based form including one or more data fields and form database; whereby input fields that are related to other input fields within the overall electronic form;

Also see Coifman at Fig. 3 and Para 32, discloses text input may need to be input into a medical form 310, that includes a patient's name, shown in computerized form field 315, the patient's address, shown in computerized form field 318, the patient's phone number, shown in computerized form field 320, and the patient's age, shown in computerized form field 320. Sub-databases 371, 372 and 373 shown in FIG. 3 are specific examples of the general field sub-databases 271, 272 and 273 of FIG. 2. These sub-databases provide first-pass text strings for matching speech input provided by the doctor when populating form fields 315, 318 and 328 (FIG. 3) respectively.



It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

### ***Response to Arguments***

The Arguments filed on 09/21/2007 has been fully considered but they are not persuasive. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

### ***Conclusion***

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc A. Tran whose telephone number is 571-272-8664. The examiner can normally be reached on Monday through Friday from 9 AM to 5 PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Quoc A. Tran/  
Patent Examiner  
Art Unit 2176  
12/04/2007

*/Doug Hutton/*  
Doug Hutton  
Supervisory Primary Examiner  
Technology Center 2100